September 5 - 11, 2003

<P>The Terra spacecraft is in nominal mode. All instruments are in Science Mode.</P>

<P>The planned Drag Make-up Maneuver involving a 10.8-second thruster firing was successfully conducted on Wednesday, September 10, 2003.</P>

<P>As described for the previous reporting period, on Thursday morning, September 4, 2003, 472,302 uncorrectable data blocks were discovered in the downlink from the Terra Solid State Recorder (SSR) ASTER buffer. This amount of data equates to approximately 3.6% of the content of a full ASTER SSR buffer. Upon replay of these data, the same number of uncorrectables was observed. On subsequent TDRSS passes, once the area of SSR memory that contained the uncorrectable data was overwritten with new data, the downlinked data from the ASTER SSR buffer was normal, with no uncorrectable data. This indicated that the uncorrectables observed on the ground resulted from corrupted data within the ASTER SSR buffer, potentially from a Single Event Upset (SEU), as opposed to actual damage to a Printed Wire Assembly (PWA) within SSR boards mapping to specific SSR memory supersets.</P>

<P>The corrupted data were recorded and dumped outside the South Atlantic Anomaly (SAA) at latitudes below approximately 30 degrees where SEU events are relatively rare (as compared to within the SAA or near the poles). Three previous SSR data corruption events (over the past four years) also occurred outside the SAA. There is evidence that the frequency of such events may be increasing, and additional diagnostic activities are being undertaken by the Terra Flight Operations Team to better understand the event on September 4.</P>

<P>
Plans
<UL>
 Execute MODIS lunar calibration roll maneuver on Monday, September 15, 2003; and
 Continue preliminary planning for potential 3rd Deep Space Calibration Maneuver on December 6, 2003.
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